An Assessment of the Fiscal Impact of Population Growth on the *City of Aiken, South Carolina*

A Report To The Aiken City Council

By

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September 2006

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ACKNOWLEDGEMENTS

The authors would like to thank the many City of Aiken staff members who provided helpful information and comments during the preparation of this report.

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EXECUTIVE SUMMARY

The City of Aiken is a municipality of approximately 29,000 people, located 20 miles east of Augusta, Georgia. Like many other communities along the I-20 corridor, Aiken has been experiencing a fairly high rate of population growth over the past several years. The growth in population is driven in large part by the immigration of new residents from outside the state. According to municipal officials, developable land within the Aiken city limits is relatively scarce. However, the City of Aiken's utilities and other services are attractive to area residents, leading to requests for annexation of new residential developments.

At the request of the City of Aiken, we analyzed the impact of population growth on the finances of Aiken municipal government over a twenty-year period. We produced fiscal impact estimates for the City's general government operations, the operations of its water and sewer utility, and the operations of its stormwater utility.

GENERAL GOVERNMENT FISCAL IMPACTS

If population growth continues at its present pace of approximately 2.3 percent annually, then the population of the City of Aiken will exceed 45,000 by the year 2026. Aiken municipal government will incur substantial direct costs in order to provide public services to these new residents and associated new businesses. The increase in operating and capital expenditures associated with population growth is projected to exceed $179 million over the period.

The increases in residential and commercial investment and in economic activity resulting from the larger population are projected to generate approximately $141 million in additional municipal revenue over the period. This growth-related revenue increase will be sufficient to cover the growth-related increase in operating expenses. After accounting for growth-related capital requirements, however, we project a deficit of approximately $38 million, or approximately $11,200 per new household. Revenues from the existing capital improvement sales tax will offset approximately one-third of this deficit. If the capital improvements sales tax can be extended, then it will generate additional revenue that can be used to cover at least a portion of the remaining deficit.

WATER AND SEWER UTILITY FISCAL IMPACTS

We estimate that providing services to the new utility accounts resulting from population growth within the City of Aiken's utility service area will result in an increase in utility expenditures of more than $75 million. The growth-related revenue increase from utility operations is estimated at $72 million, resulting in a projected deficit of approximately $3.5 million.

STORMWATER UTILITY FISCAL IMPACTS

We estimate that population growth within the City of Aiken will increase stormwater utility expenditures by approximately $4.3 million. The growth-related increase in revenue from operations is estimated at $3.7 million, resulting in a projected deficit of approximately $0.5 million. Most of this deficit can be covered by revenues from the existing capital improvement sales tax.

INTRODUCTION

The City of Aiken is a municipality of approximately 29,000 people, located 20 miles east of Augusta, Georgia. Like many other communities along the I-20 corridor, Aiken has been experiencing a fairly high rate of population growth over the past several years. The growth in population is driven in large part by the immigration of new residents from outside the state. According to municipal officials, developable land within the Aiken city limits is relatively scarce. However, the City of Aiken's utility and other services are attractive to area residents, leading to requests for annexation of new residential developments.

As a part of its ongoing effort to deal proactively with growth and development, the City of Aiken commissioned this fiscal impact assessment. The report is organized into six sections. The current section introduces the report and discusses research concerning the fiscal impact of population growth. The second section provides an overview of the fiscal impact analysis and discusses the key variables that are used as the basis of the analysis. The third section presents estimates of the fiscal impact of population growth on the City's general government operations. The fourth section presents estimates of the fiscal impact of growth on the City's water and sewer utility operations. The fifth section presents estimates concerning the City's stormwater utility operations. The final section presents our conclusions. Information about key assumptions and methodology is contained in an appendix.

THE FISCAL IMPACT OF POPULATION GROWTH

Until the last few decades, population growth was generally considered to have a positive fiscal impact upon communities. The benefits of growth—increased tax base, jobs and economic opportunities—were the primary focus. But as the pace of growth has accelerated over the last 30 years, the research focus has expanded to include the costs of growth. Communities can often accommodate the cost of increased service demands resulting from a moderate growth rate. Rapid growth, however, may impede a community's capacity to provide essential services such as roads, recreation facilities, and schools. Clancy Mullen notes that "Rapid growth spurts in excess of three percent are much more likely to result in traffic congestion, overcrowded schools and rising tax and utility bills."[1]

A large body of literature exists that analyzes the costs to expand government services and infrastructure to serve new residents and businesses.[2] Other studies have focused

[1] Clancy Mullen, *The Cost of Growth: A Brief Overview* (Austin, Texas: Duncan Associates, March 2002).

[2] See, for example, publications on this topic available from the following organizations: the Lincoln Institute for Land Policy, <http://www.lincolninst.edu/index-high.asp>, the Northeast Midwest

upon environmental issues associated with growth (e.g., excessive water consumption, air pollution, loss of wildlife habitat, and loss of farmland),[3] transportation and commuting costs,[4] the social consequences of suburban growth,[5] the impact of sprawl,[6] and techniques to reduce public and private costs through development practices, i.e., "Smart Growth".[7]

Much of the research analyzing the fiscal impact of growth has concluded that residential development does not pay for itself. The American Farmland Trust (AFT) collected studies across the nation and determined that on average, residential development requires $1.16 in community services for every $1 of tax revenue it contributes.[8] In Culpepper County, Virginia, researchers found that residential development costs $1.25 in county services for every $1 of revenue.[9] A 2002 University of Georgia study of four communities found that residential development required a range of $1.24 to $2.26 in community services for every $1 of tax revenue generated.[10] In previous research, we have found that residential growth will typically generate sufficient revenue to fund the required increase in local government operating

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Institute <http://www.nemw.org/reports.htm#smartgrowth> , and the National Center for Smart Growth Research and Education <http://www.smartgrowth.umd.edu>.

[3] See, for example, publications on this topic available from the following organizations: the American Farmland Trust <http://www.farmland.org>, the Farm Foundation <http://www.farmfoundation.org>, and the U.S. Environmental Protection Agency <http://www.epa.gov/livability>.

[4] See, for example, publications on this topic available from the American Planning Association <http://www.planning.org>.

[5] Robert D. Putnam, *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon & Schuster, 2000). See also publications on this topic available from the American Planning Association <http://www.planning.org>.

[6] www.planning.org, www.sierraclub.org, William Coyne, *The Fiscal Cost of Sprawl: How Sprawl Contributes to Local Governments' Budget Woe,* (Denver, CO: Environment Colorado Research and Policy Center, December 2003). See also publications on this topic available from the American Planning Association <http://www.planning.org> and the Sierra Club <http://www.sierraclub.org>.

[7] Dwight Young, *Alternatives to Sprawl* (Cambridge, MA: Lincoln Institute for Land Policy, 1995). See notes 5, 6, and 7 and publications on this issue at the Brookings Institution <http://www.brookings.edu>.

[8] American Farmland Trust, *Fact Sheet: Cost of Community Services Studies*, (Washington, D.C.: American Farmland Trust, November 2002), p. 2.

[9] Henry L. Diamond and Patrick F. Noonan, *Land Use in America* (Cambridge, MA: Lincoln Institute for Land Policy, 1996), p. 35.

[10] Jeffrey H. Dorfman, et al., *The Economic Costs of Development for Local Governments* (Athens, GA: University of Georgia, January 2002).

expenses. Only under certain circumstances, however, is it likely to generate sufficient revenue to pay for all growth-related capital expenditures.[11]

Conclusions such as those above are disputed by the homebuilding industry, which argues that these analyses do not capture the associated taxes and dollars spent on home furnishings and other goods and services.[12] However, most research concludes that residential development puts a greater strain on public services than commercial or industrial development and does not generate adequate revenue to support it.

Every local government faces a different situation. The fiscal impact of residential development varies depending on characteristics of the proposed development projects and the revenue structure of the local government. Local officials should be wary of merely assuming that residential growth will provide the revenue needed to maintain service levels without increasing tax rates.

[11] Taylor, Charles D. and William E. Molnar. February 2006. *Population Growth and Local Government Finance: What Have We Learned?* [STI Policy Brief] (Clemson, SC: Strom Thurmond Institute, Clemson University), <http://www.strom.clemson.edu/publications/taylor/popgrowth_0206.pdf>.

[12] National Association of Home Builders, *Smart Growth, Smart Choices* (Washington, DC: National Association of Home Builders, 2002), <http://www.nahb.org/publication_details.aspx?sectionID=702&publicationID=15>.

FISCAL IMPACT ANALYSIS - OVERVIEW

For the twenty-year period beginning in fiscal year 2007 and ending in fiscal year 2026, we estimated the increases in local government expenditures and revenues associated with projected population growth in the City of Aiken. We estimated the fiscal impact of growth on the City's general government and utility operations. This section of the report presents the demographic assumptions that are used as the basis of the analyses and briefly describes our methodology for estimating population-related expenditure and revenue increases. The results of the analyses for each class of government activity are presented in separate sections following this section. Detailed descriptions of the methodology and key assumptions are provided in the appendix.

PROJECTED POPULATION AND OTHER KEY VARIABLES

The population growth rate, average household size, and average home value are three key variables that affect the results of the fiscal impact analysis. This section of the report briefly describes the assumptions regarding these variables that form the basis of the analysis. Other assumptions are described in the appendix.

Over the past several years, the City of Aiken has experienced population growth of approximately 2 percent annually. The US Census Bureau estimates that Aiken's population increased from 23,472 in 1996 to 26,975 in 2004. This increase is equivalent to a 1.91 percent average annual increase. The increase in the number of residential water accounts within the City, however, indicates that the Census figures may understate the true rate of population growth. Residential water accounts within the city limits increased from 8,118 in 1996 to 9,764 in 2004, an increase equivalent to annual growth of 2.34 percent. Annual housing starts and increases in residential solid waste accounts also indicate that the City's population has been growing at a rate of approximately 2.3 percent. Because of this evidence that the municipal population is growing at a rate greater than is indicated in the Census data, we use a growth rate of 2.3 percent in our projections of future population. We use the July 2000 Census population estimate of 25,213 as the base for our projection and then project annual growth of 2.3 percent through the year 2026, the end of the study period.

Over past decades, average household sizes have decreased due to the fact that people live longer and families tend to have fewer children. According to Census figures, households in the City of Aiken averaged 2.48 persons in 1990. By 2000, households averaged only 2.34 persons, a decrease of approximately 5 percent. We assume that household sizes will continue to decrease at this rate and that the average household size over the study period will be 2.14 persons. This average household size was used to estimate the number of new households for each year of the study period. Population and household projections are presented in Table 1.

Table 1 – Projected Population and Households, City of Aiken, 2007-2026

Year	Projected Population	Population Increase	Projected Household Increase
2007	29,563	665	311
2008	30,243	680	318
2009	30,939	696	325
2010	31,651	712	333
2011	32,378	728	340
2012	33,123	745	348
2013	33,885	762	356
2014	34,664	779	364
2015	35,462	797	373
2016	36,277	816	381
2017	37,112	834	390
2018	37,965	854	399
2019	38,838	873	408
2020	39,732	893	417
2021	40,646	914	427
2022	41,580	935	437
2023	42,537	956	447
2024	43,515	978	457
2025	44,516	1,001	468
2026	45,540	1,024	478

The City's most recent Consolidated Annual Financial Report contains statistics on the value of residential construction over the past several years. We analyzed this information and determined that the average value of new residential units (in 2005 dollars) has been approximately $156,000. We used this value as the average value of new homes constructed in Aiken during the study period. We assumed that average home values will increase each year at the rate of inflation.

EXPENDITURE ESTIMATES

A larger population requires greater government expenditures for three reasons. First, additional local government employees are needed to provide existing local government services to new residents while maintaining the level of service provided to existing residents. For example, as new areas are developed and the population increases, additional public works employees are required to maintain the road system. These additional employees not only require increased expenditures on salaries and benefits, but also result in increased operating expenditures for fuel, uniforms, and other supplies needed to conduct departmental activities. Second, a larger population will require increased expenditures for services provided by third parties, such as solid waste landfill services. Third, providing services to a larger population often requires capital expenditures for new infrastructure, such as fire stations and roads, and for additional vehicles and equipment such as fire engines and patrol vehicles.

We classified municipal governmental activities into functional categories. We then estimated the increase in government expenditures in each category associated with the projected increase in population. We report separate estimates for the operations financed from the general fund and the utilities operated as enterprises. A description of our methodology is provided in the appendix.

REVENUE ESTIMATES

An increase in population leads to increased local government revenues in three ways. First, the homes owned or rented by the new residents, as well as the vehicles and other taxable personal property they own, generate additional property tax revenue. Second, the new residents contribute to increases in non-tax revenues, such as fines, fees, and permits. Third, the larger population provides a larger market for locally-provided goods and services, which increases local business investment and generates additional property tax revenue. The City of Aiken's major sources of revenue include property taxes, charges for services, business license fees, and fines. We estimated the increase associated with the projected population increase for each type of revenue. A description of our methodology is provided in the appendix.

FISCAL IMPACT ANALYSIS – GENERAL FUND

For the twenty-year period beginning in fiscal year 2007 and ending in fiscal year 2026, we estimated the direct impacts of population growth on City of Aiken general government expenditures and revenues. This section of the report summarizes and compares the expenditure and revenue estimates.

EXPENDITURE INCREASES

Municipal activities are classified into six functional categories.[13] Expenditures within each functional category are divided into two types: operating and capital. The two expenditure types are briefly described below. Detailed explanations of the methods and assumptions used in estimating increases in expenditures of each type are provided in the appendix.

Operating Expenditures. These expenditures include employee salaries and fringe benefits, the costs of maintaining and operating vehicles and equipment, the costs of supplies, and other non-capital expenditures related to the activities of each department within Aiken municipal government. These expenditures also include payments by the City of Aiken to other public or private organizations for the provision of municipal services, such as disposal of solid waste.

Capital Expenditures. These expenditures include the costs of purchasing or constructing new public facilities, such as public safety stations and parks, and the cost of vehicles and equipment, such as street maintenance equipment and patrol cars.

The estimated growth-related increase in expenditures of each type within each functional category is presented in Table 2. The growth-related increase in expenditures is projected to exceed $179 million. Operating expenditures comprise the majority of the expenditures, approximately 63 percent.

Public safety, public works, and recreation and culture are the functional categories with the largest projected impact on total growth-related expenditures. Together, expenditures in those three functional categories comprise approximately 87 percent of the entire expenditure increase.

[13] Our functional categories do not precisely correspond to departmental jurisdictions. For example, we place building inspection activities in the Planning and Community Development category along with planning activities, although they are each performed by separate departments.

Table 2 – Estimated Growth-Related Expenditures by Type and Functional Category, Present Value, City of Aiken, 2007 - 2026

Category	Operating	Capital	Total
General Administration	$6,780,000	$546,000	**$7,326,000**
Planning and Community Development	9,836,000	1,197,000	**11,033,000**
Judicial Administration	5,134,000	480,000	**5,614,000**
Public Safety	45,646,000	6,486,000	**52,132,000**
Public Works – Non-Sanitation	8,248,000	17,204,000	**25,452,000**
Public Works – Sanitation	17,637,000	4,349,000	**21,986,000**
Recreation and Culture	20,286,000	35,787,000	**56,073,000**
Total	**$113,567,000**	**$66,049,000**	**$179,616,000**

The estimated growth-related expenditure increases within each functional category are summarized in Table 3 through Table 9. In addition to the expenditure estimates, each category summary includes a brief description of the activities included within the category and a brief description of the additional full-time personnel[14] and facilities required to serve the increase in population. Additional estimate details are available in the appendix.

General Administration. Expenditures in the general administration functional category include those related to operations of the City Council, City Manager's office, and finance department. Capital expenditures within the general administration category are those needed to expand office capacity to accommodate the expected increase in staffing level. Increases in general administration expenditures are summarized in Table 3.

[14] The projected personnel additions are estimates based primarily on projected increases in population. Actual staffing decisions take into account other factors in addition to the size of the local population. Consequently, future staff levels may be higher or lower than the levels projected in this report.

Table 3 – General Administration, City of Aiken, Estimated Growth-Related Expenditures, 2007-2026

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 7 finance/MIS and 2 human resources employees	$6,780,000
Capital	Additional office space with associated land	546,000
Total		**$7,326,000**

Planning and Community Development. Expenditures in the planning and community development functional category include those related to planning, building and zoning, and code enforcement. Increases in planning and community development expenditures are summarized in Table 4.

Table 4 – Planning and Community Development, City of Aiken, Estimated Growth-Related Expenditures, 2007-2026

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 3 planners, 6 inspectors, and 3 clerical employees	$9,836,000
Capital	Additional office space with associated land; passenger vehicles for inspectors	1,197,000
Total		**$11,033,000**

Judicial Administration. Expenditures in the judicial administration functional category include those related to the operation of the municipal court. Increases in judicial administration expenditures are summarized in Table 5.

Table 5 – Judicial Administration, City of Aiken, Estimated Growth-Related Expenditures, 2007-2026

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 4 part-time judges, and 4 clerks and administrative employees	$5,134,000
Capital	Additional office and courtroom space with associated land;	480,000
Total		**$5,614,000**

Public Safety. Expenditures in the public safety functional category include those related to law enforcement, fire protection, emergency dispatch, and traffic maintenance. Increases in population will necessitate hiring additional sworn public safety officers, fire equipment driver/operators, dispatchers, civilian administrative employees, and traffic maintenance workers. Capital expenditures include those needed to expand office capacity to accommodate additional personnel, to construct an additional public safety station, and to purchase additional patrol vehicles and fire fighting equipment. Increases in public safety expenditures are summarized in Table 6.

Table 6 – Public Safety, City of Aiken, Estimated Growth-Related Expenditures, 2007-2026

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 33 patrol officers, 4 investigative officers, 7 administrative officers, 4 fire operator/drivers, 6 dispatchers, 2 traffic maintenance workers, 4 civilian administrative workers	$45,646,000
Capital	Additional office space with associated land; public safety station; patrol vehicles; fire fighting equipment	6,486,000
Total		**$52,132,000**

Public Works. Expenditures in the public works functional category include those related to street maintenance, building and grounds maintenance, solid waste collection and disposal, and the maintenance garage. Expenditures related to the operation of the water/sewer and stormwater utilities are estimated in separate analyses.

Increases in population will necessitate the hiring of additional equipment operators, maintenance workers, and supervisors. Other operating expenditures include landfill fees for the disposal of commercial solid waste. Capital expenditures within the public works category include those needed to expand office capacity and equipment storage space to accommodate the expected increase in staffing levels, and the purchase of additional vehicles and maintenance equipment. These capital expenditures also include those for street system improvements, which we have broken out from the rest of the expenditures. Increases in public works expenditures are summarized in Table 7 and Table 8.

Table 7 – Public Works – Non-Sanitation, City of Aiken, Estimated Growth-Related Expenditures, 2007-2026

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 12 equipment operators/maintenance workers, 2 maintenance mechanics	$8,248,000
Capital	Additional office space and equipment storage with associated land; street maintenance equipment	3,526,000
	Street system improvements	13,678,000
Total		**$25,452,000**

Table 8 – Public Works – Sanitation, City of Aiken, Estimated Growth-Related Expenditures, 2007-2026

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 12 solid waste drivers, 4 solid waste equipment operators, 8 solid waste maintenance workers Other: increased landfill costs	$17,637,000
Capital	Additional office space and equipment storage with associated land; solid waste collection equipment	4,349,000
Total		**$21,986,000**

Recreation and Culture. Expenditures in the recreation and culture functional category include those related to the operation of the park and recreation system and the Hopelands Garden and Rye Patch facilities. Increases in population will necessitate hiring additional park maintenance workers, recreation and athletic program specialists, and supervisors. Capital expenditures within the recreation and culture category include those needed for the purchase of additional park land, recreation facilities, and maintenance vehicles and equipment. Increases in recreation and culture expenditures are summarized in Table 9.

Table 9 – Recreation and Culture, City of Aiken, Estimated Growth-Related Expenditures, 2007-2026

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 18 park maintenance workers, 8 recreation and athletics workers, 4 supervisors	$20,286,000
Capital	Additional park land and improvements; park maintenance equipment	35,787,000
Total		**$56,073,000**

REVENUE INCREASES

The City of Aiken has four sources of revenue that are expected to grow with the population: property taxes, license and permit fees, charges for services, and fines. Each revenue source is briefly described below. Detailed explanations of the methods and assumptions used in projecting revenue from each source are provided in the appendix.

Property Tax Revenue. Property taxes provide almost one-third of the City of Aiken's general fund revenue. Property taxes are assessed on both real property and personal property. Real property includes owner-occupied residential property, commercial and rental property, and other non-residential property. Personal property includes vehicles owned by individuals and business personal property.

License and Permit Fee Revenue. License and permit fees provide almost one-third of the City's general fund revenue. These revenues include franchise fees paid by utilities (including the City's utility operations), professional and occupational license fees, insurance company premium fees, and building permit fees.

Charges for Services. Charges for services provide over 20 percent of the City's general fund revenue. These revenues include solid waste fees, park and recreation fees, building plan review fees, and the administrative fees paid to the general fund by the City's utility operations.

Fines. Fine revenues consist primarily of the fines collected through the municipal court. After deducting court costs that are paid to the state, fines provide approximately 2 percent of the City's general fund revenue.

The City of Aiken also receives a share of the revenue generated by a county-wide capital improvements sales tax. This revenue is not directly affected by population growth as the tax is collected for seven years or until a specified amount of revenue is collected, whichever occurs first. Consequently, the City's share of the current sales tax is fixed. We did, however, review the list of capital projects to be funded from sales tax revenues[15] and identified the portion of revenue dedicated to projects that expand the City's ability to serve a larger population.[16] This portion of the sales tax revenue has a present value of approximately $13 million. Our analysis reflects the availability of this revenue to offset a portion of future capital expenditures.

The City of Aiken also receives certain intergovernmental revenues, revenues from the use of money and property, and miscellaneous revenues. The use of money and

[15] The list was downloaded from http://www.aikencounty.net/Reference/ADM2004capitalprojectssalestaxlist.pdf

[16] The remaining projects appeared to be intended to upgrade existing infrastructure rather than to expand capacity.

property and the miscellaneous revenues provide less than five percent of general fund revenue. Intergovernmental revenues provide approximately seven percent of the City's general fund revenue. We do not project that these revenues will significantly increase with population in any predictable way.

The estimated growth-related increase in revenue from each source is presented in Table 10. The growth-related revenue increase over the period is projected to exceed $141 million. Property tax revenues account for 40 percent of the projected revenue increase; license and permit fees are the next largest source at 39 percent. Charges for service are projected to provide 19 percent and fines approximately 2 percent.

Table 10 – Estimated Growth-Related Operating Revenues by Source, City of Aiken, Present Value, 2007 - 2026

Revenue Source	Amount
Property Tax	
Residential real estate	$32,813,000
Non-Residential real estate	12,234,000
Personal property	11,889,000
Total Property Tax Revenue	**56,936,000**
License and Permit Fees	
Business Licenses and Private Franchise Fees	44,109,000
Municipal Franchise Fees	3,328,000
Permits	7,149,000
Total License and Permit Fees	**54,586,000**
Charges for Services	
Recreation Fees	3,526,000
Solid Waste Fees	14,204,000
Plan Review Fees	3,151,000
Administrative Fees	6,678,000
Total Charges for Services	**27,559,000**
Total Fines	**2,313,000**
Total Operating Revenues	**$141,394,000**

COMPARISON OF EXPENDITURES AND REVENUES

Table 11 presents a comparison of the projected increases in expenditures and revenues associated with population growth. Our analysis indicates that the growth-related increase in revenue will be sufficient to cover the increase in operating expenditures required to provide municipal government services to new residents and businesses. Operating revenues are projected to exceed operating expenditures, producing a surplus of almost $28 million. After accounting for growth-related capital expenditures, however, we project a deficit exceeding $38 million. Approximately $13 million of

capital improvement sales tax revenue will be available to offset a portion of these expenditures, leaving a net deficit of approximately $25 million.

Another way to put these figures into perspective is to consider the ratio of new expenditures to new revenues. Considering only operating revenues and expenditures, population growth is projected to increase operating expenditures by approximately $0.80 for every $1.00 it increases operating revenues. When capital improvement expenditures are accounted for, the ratio is $1.27 of expenditures for every $1.00 of revenues. After accounting for the offset by sales tax revenues, the ratio decreases to $1.16 in expenditures for every $1.00 of revenue.

Table 11 – Estimated Growth-Related Expenditures, Revenues, and Surplus or (Deficit), City of Aiken, Present Value, 2007 – 2026

Item	Amount
Operating Revenues	$141,394,000
Operating Expenditures	113,567,000
Operating Surplus/(Deficit)	27,827,000
Capital Expenditures	66,049,000
Surplus/(Deficit) after Capital Expenditures	(38,222,000)
Capital Improvements Sales Tax Revenue	12,976,000
Surplus/(Deficit) after Sales Tax Revenue	($25,246,000)

FISCAL IMPACT PER NEW HOUSEHOLD

On average, each new household contributes to the total fiscal impact by requiring new expenditures and providing new revenues. The net impact per household cannot be calculated simply by dividing annual deficits or surpluses by the number of new households each year. That method would not accurately allocate the costs of capital improvements because new households in early years contribute to the need for capital improvements that occur in later years and households in later years benefit from capital improvements that occur in earlier years.

We calculate the average impact per new household by dividing the present value of the net impact by the weighted total of projected new households. New households in each year are weighted by the number of years they will be served during the study

period. In other words, new households in the first year are weighted twenty times as heavily as new households in the last year, because they receive services and contribute to revenues for twenty years rather than for one. The estimated revenues per new household are presented in Table 12. The estimated expenditures per new household are presented in Table 13.

Table 12 – Estimated Revenues per New Household by Source, City of Aiken, Present Value, 2007-2026

Revenue Source	Amount
Property Tax	
Residential real estate	$9,649
Non-Residential real estate	3,598
Personal property	3,496
Total Property Tax Revenue	**16,742**
License and Permit Fees	
Business Licenses and Private Franchise Fees	12,970
Municipal Franchise Fees	979
Permits	2,102
Total License and Permit Fees	**16,051**
Charges for Services	
Recreation Fees	1,037
Solid Waste Fees	4,177
Plan Review Fees	927
Administrative Fees	1,964
Total Charges for Services	**8,104**
Total Fines	**680**
Total Operating Revenues	**$41,577**

Table 13 – Estimated Expenditures per New Household by Category, City of Aiken, Present Value, 2007-2026

Category	Expenditure
General Administration	$2,154
Planning and Community Development	3,244
Judicial Administration	1,651
Public Safety	15,330
Public Works – Non-Solid Waste	7,484
Public Works – Solid Waste	6,465
Recreation and Culture	16,488
Total	**$52,817**

Calculated by this method, the present value of the costs of serving the average new household over the next twenty years exceeds the present value of the revenue generated by it by approximately $11,200. Revenue from the existing capital improvement sales tax will offset approximately one-third of the deficit, reducing it to approximately $7,400. The comparison of expenditures and revenues is summarized in Table 14.

Table 14 – Estimated Expenditures, Revenues, and Surplus or (Deficit) per New Household, City of Aiken, Present Value, 2007 – 2026

Item	Amount
Operating Revenues	$41,577
Operating Expenditures	33,395
Operating Surplus/(Deficit)	8,183
Capital Expenditures	19,422
Surplus/(Deficit) after Capital Expenditures	(11,240)
Capital Improvements Sales Tax Revenue	3,816
Surplus/(Deficit) after Sales Tax Revenue	(7,424)

POTENTIAL IMPACT OF REAUTHORIZATION OF THE CAPITAL IMPROVEMENTS SALES TAX

Although the revenue available from the presently approved county-wide capital improvements sales tax is fixed, it is possible that the sales tax could be reauthorized up to two more times during the period under study. Any such reauthorization, like the current tax, would require the local governments in Aiken County to develop a list of capital projects and agree on a division of the revenues. The plan would then need to be approved by the voters in a county-wide election.

Table 15 presents our estimates of the potential revenue available for growth-related capital improvements in the event that the sales tax is reauthorized one or more times. We estimate that at least $31 million would be made available for growth-related capital improvements if the capital improvements sales tax is reauthorized and remains in effect during the entire period under study. In making this estimate, we assumed that the City will spend approximately half of the sales tax revenue on projects that expand its capacity to serve a larger population, with the other half spent on upgrades of existing infrastructure. If the City chooses to spend a larger proportion of available sales tax revenue on capacity enhancing projects, the revenue available for growth-related expenditures will be greater than we have estimated. The assumptions and methods used in preparing the estimates are described further in the appendix.

Table 15 – Estimated Potential Sales Tax Revenue Available for Growth-Related Capital Expenditures, City of Aiken, Present Value, 2007 – 2026

Authorization	Amount
First Potential Reauthorization (circa 2014)	$14,702,000
Second Potential Reauthorization (circa 2021)	16,657,000
Total	$31,359,000

SENSITIVITY ANALYSIS

We examined the sensitivity of our impact estimates to changes in two key variables: the population growth rate and the average new residence value. We examined the sensitivity of the estimates to changes in the population growth rate by preparing estimates for two alternate scenarios using growth rates that are one-half percentage point below and above our base scenario growth rate of 2.3 percent. A summary of the two alternate scenarios and the base scenario is presented in Table 18. For either scenario, there is relatively little change in the overall deficit. A reduction in the assumed population growth rate of 0.5 percent reduces the deficit after capital expenditures by approximately $5 million. An increase of the same magnitude in the growth rate increases the projected deficit by about $5 million.

Table 16 – Estimated Growth-Related Expenditures, Revenues, and Surplus or (Deficit), Base and Alternate Growth Rate Scenarios, City of Aiken, Present Value, 2007 – 2026

Item	Base Scenario: 2.3 percent	Low Growth: 1.8 percent	High Growth: 2.8 percent
Operating Revenues	$141,394,000	$102,837,000	$185,361,000
Operating Expenditures	113,567,000	86,831,000	143,661,000
Operating Surplus/(Deficit)	27,827,000	16,006,000	41,700,000
Capital Expenditures	66,049,000	49,166,000	85,112,000
Surplus/(Deficit) after Capital Expenditures	(38,222,000)	(33,160,000)	(43,412,000)
Capital Improvements Sales Tax Revenue	12,976,000	12,976,000	12,976,000
Surplus/(Deficit) after Sales Tax Revenue	($25,246,000)	($20,184,000)	($30,436,000)

We examined the sensitivity of the estimates to changes in average residence value by preparing estimates for two alternate scenarios using residence values of $180,000 and $240,000. A summary of the two alternate scenarios and the base scenario is presented in Table 17. The overall deficit or surplus is fairly sensitive to the average value of new residences. An increase of $24,000 in the assumed average residence value to $180,000 reduces the projected deficit after capital expenditures by more than $8 million. If we assume an even greater average residence value of $240,000, we project that the deficit after capital expenditures will be less than $9 million. In any of the scenarios, the deficit is further reduced by the availability of capital improvements sale tax revenues.

Table 17 – Estimated Growth-Related Expenditures, Revenues, and Surplus or (Deficit), Base and Alternate Residence Value Scenarios, City of Aiken, Present Value, 2007 – 2026

Item	Base Scenario: $156k	Alternate One: $180k	Alternate Two: $240k
Operating Revenues	$141,394,000	$149,779,000	$170,740,000
Operating Expenditures	113,567,000	113,567,000	113,567,000
Operating Surplus/(Deficit)	27,827,000	36,212,000	57,173,000
Capital Expenditures	66,049,000	66,049,000	66,049,000
Surplus/(Deficit) after Capital Expenditures	(38,222,000)	(29,837,000)	(8,876,000)
Capital Improvements Sales Tax Revenue	12,976,000	12,976,000	12,976,000
Surplus/(Deficit) after Sales Tax Revenue	($25,246,000)	($16,861,000)	$4,100,000

The results of these two sensitivity analyses indicate changes in housing values have a potentially greater effect on the fiscal impact of growth than changes in the overall rate of growth.

SUMMARY

If the municipal population continues to grow at its present annual rate of approximately 2.3 percent, then the population of the City of Aiken will grow from approximately 29,000 to more than 45,000 by the year 2026. Aiken municipal government will incur substantial direct costs in order to provide public services to these new residents. The increased operating and capital expenditures associated with population growth are projected to exceed $179 million over the twenty-year study period.

The increase in residential and commercial investment and the increase in economic activity resulting from the larger population are projected to generate approximately $141 million in additional municipal revenue over the period. This growth-related revenue increase will be sufficient to cover the growth-related increase in operating

expenses. After accounting for growth-related capital requirements, however, we project a deficit of more than $38 million, or approximately $11,200 per new household. Revenues from the existing capital improvement sales tax will offset about one-third of this deficit. In the event that the capital improvement sales tax is reauthorized one or more times during the period under study, there is potentially enough sales tax revenue to cover the remaining deficit.

We think it advisable to point out that transportation infrastructure capital expenditures constitute a relatively large portion of all growth-related expenditures. These expenditures constitute 20 percent of the projected growth-related capital expenditures for all purposes combined and 8 percent of total projected growth-related expenditures. As we explain in the appendix, our estimate of these future expenditures is based on the City's current capital investments in transportation infrastructure. An engineering estimate by a qualified transportation engineer may project a significantly different level of required spending for transportation infrastructure. If the actual required spending is greater than we have estimated, then the growth-related deficit will be correspondingly higher.

FISCAL IMPACT ANALYSIS – WATER AND SEWER UTILITY

The City of Aiken operates a water and sewer utility for the benefit of its citizens. Its operations are funded primarily by user charges with finances accounted for in a proprietary fund which is separate from the City's general fund. Water and sewer services are also provided to residences and businesses in certain areas outside of the city limits. When requesting water or sewer service, customers outside the city limits must petition for annexation, if their property is contiguous to the city limits. If it is not, they must agree to annex in the event that the city limits expand so that their property is contiguous. So long as they are outside the city limits, these customers pay for services at rates that are twice the rates paid by households and businesses within the city limits.

For the twenty-year period beginning in fiscal year 2007 and ending in fiscal year 2026, we estimated the direct impacts of population growth on the expenditures and revenues associated with the operation of the City's water and sewer utility services. This section of the report summarizes and compares the expenditure and revenue estimates.

UTILITY ACCOUNT GROWTH PROJECTION

We assumed that each new home constructed within the city would result in one additional residential water and sewer account. We projected the increase in non-residential accounts by calculating the historical relative growth rates of residential and non-residential accounts and assuming that the same relationship would continue in the future. We projected the increase in utility accounts outside the city limits in a similar manner. Table 18 presents the projected annual increase in utility accounts of each type.

Table 18 – Projected Annual New Water and Sewer Utility Accounts, City of Aiken, 2007-2026

	Inside City Limits		Outside City Limits	
Year	Residential Accounts	Non-Residential Accounts	Residential Accounts	Non-Residential Accounts
2007	311	20	40	1
2008	318	20	40	1
2009	325	20	40	1
2010	333	20	40	1
2011	340	21	40	1
2012	348	21	40	1
2013	356	21	40	1
2014	364	21	40	1
2015	373	21	40	1
2016	381	21	40	1
2017	390	21	40	1
2018	399	22	40	1
2019	408	22	40	1
2020	417	22	40	1
2021	427	22	41	1
2022	437	23	41	1
2023	447	23	41	1
2024	457	23	41	1
2025	468	23	41	1
2026	478	23	41	1

EXPENDITURE INCREASES

Water and sewer utility expenditures are divided into two types: operating and capital. The two expenditure types are briefly described below. Detailed explanations of the methods and assumptions used in estimating increases in expenditures of each type are provided in the appendix.

Operating Expenditures. These expenditures include employee salaries and fringe benefits, the costs of maintaining and operating vehicles and equipment, the costs of supplies, and other non-capital expenditures related to the activities of each municipal utility. These expenditures also include franchise fee and administrative expense reimbursements paid to the City's general fund and payments to the Horse Creek Basin Wastewater Treatment facility.

Capital Expenditures. These expenditures include the costs of purchasing or constructing new public facilities, such as water pumping facilities, the cost of purchasing new vehicles and equipment, and additional capacity charges paid to the Horse Creek Basin Wastewater Treatment facility.

Estimated growth-related expenditure increases associated with operation of the water and sewer utility are summarized in Table 19. The summary includes a brief description of the additional full-time personnel[17] and facilities required to serve the increase in population. Additional estimate details are available in the appendix.

The growth-related increase in expenditures is projected to exceed $60 million. Operating expenditures comprise the majority of the increase, approximately 85 percent. The capital expenditure estimate does not include the value of water or sewer system infrastructure paid for by developers or other parties requesting service.

[17] The projected personnel additions are estimates based primarily on projected increases in accounts served. Actual staffing decisions take into account other factors. Consequently, future staff levels may be higher or lower than the levels projected in this report.

Table 19 – Water and Sewer Utility, City of Aiken, Estimated Growth-Related Expenditures, 2007-2026

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 3 engineering workers, 15 distribution workers, and 1 distribution supervisor	$51,226,000
	Other: Increased wastewater treatment charges; increased water pumping facility operating expenses	
Capital	Additional office space with associated land; construction of new water pumping facilities; charges for additional Horse Creek facility capacity; purchase of new vehicles and maintenance equipment	9,378,000
Total		**$60,604,000**

REVENUE INCREASES

The City of Aiken water and sewer utility has two main sources of revenue that are expected to grow with the population: (1) monthly water and sewer consumption charges based on the metered volume of water and (2) meter, tap, and impact fees paid at the time of connection to the system. Each revenue source is briefly described below. Detailed explanations of the methods and assumptions used in projecting revenue from each source are provided in the appendix.

Monthly Consumption Charges. Water use is metered and water users pay for all water consumed. Sewer charges are based on water consumption. Customers outside the city limits pay rates that are twice those paid by city residents.

Meter, Tap, and Impact Fees. At hook-up, each water customer pays a meter and tap fee based on the size of their meter and connection. Water customers also pay an impact fee to partially offset the increase in capacity required to serve them. Sewer customers pay a connection fee at the time of connection to the system. Customers outside the city limits pay meter, tap, and connection fees that are twice those paid by city residents. They pay the same impact fee as customers within the city limits.

The estimated growth-related increase in revenue from each source is presented in Table 20. The growth-related water and sewer revenue increase over the period is projected at almost $72 million. Water and sewer consumption charges account for 74 percent of the revenue increase; meter, connection, and impact fees account for the other 26 percent.

Table 20 – Estimated Growth-Related Revenues by Source, Water and Sewer Utility, City of Aiken, Present Value, 2007 - 2026

Revenue Source	Amount
Consumption Charges	
Water Consumption	$22,651,000
Sewer Consumption	29,697,000
Penalties	883,000
Total Consumption Charges	**53,231,000**
Meter, Connection, and Impact Fees	
Meter and Connection Fees	13,240,000
Impact Fees	5,223,000
Total Meter, Connection, and Impact Fees	**18,463,000**
Total Revenues	**$71,694,000**

COMPARISON OF EXPENDITURES AND REVENUES

Table 21 presents a comparison of the projected increase in water and sewer utility expenditures and revenues associated with population growth. Our analysis indicates that the growth-related revenues will exceed growth-related expenditures by about $11 million. As noted earlier, however, this analysis does not include the cost of capital expenditures related to system extensions paid for by developers or other parties requesting service. Although, the initial investment in this infrastructure is paid for by others, these facilities have a finite useful life and will require upgrading and/or eventual replacement. The water and sewer utility is responsible for these replacements and upgrades and these future costs are not reflected in the $11 million surplus.

Depreciation expenses are used to account for the costs associated with the eventual replacement of infrastructure, such as water and sewer facilities. We estimate that the increase in water and sewer utility depreciation expense over the study period has a

present value of more than $14 million. After allowing for this increase in depreciation expense, we project that water and sewer utility expenditures will exceed revenues by approximately $3.5 million over the study period. This deficit is equivalent to a ratio of $1.05 in expenditures for each $1.00 of revenues.

Table 21 – Estimated Growth-Related Expenditures, Revenues, and Surplus or (Deficit), Water and Sewer Utility, City of Aiken, Present Value, 2007 – 2026

Item	Amount
Revenues	$71,694,000
Expenditures	60,604,000
Surplus/(Deficit)	11,090,000
Allowance for Depreciation	14,589,000
Surplus/(Deficit) after Allowance for Depreciation	($3,499,000)

SENSITIVITY ANALYSIS

We examined the sensitivity of our impact estimates to changes in the population growth rate by preparing estimates for two alternate scenarios using growth rates that are one-half percentage point below and above our base scenario growth rate of 2.3 percent. A summary of the two alternate scenarios and the base scenario is presented in Table 22.

This analysis indicates that the impact of population growth on the City of Aiken's water and sewer utility finances are extremely sensitive to the rate of growth of the population. The lower growth rate assumed in the low-growth scenario increases the projected deficit by almost $3 million. The higher growth rate assumed in the high-growth scenario eliminates the deficit and results in a projected surplus of approximately $0.8 million. This fluctuation in bottom line results is largely a result of the impact of changes in revenue from utility customers outside the city limits. In the two alternate scenarios, we assume that the growth rate of outside utility accounts changes with the change in population rate. Consequently, in the high-growth scenario, the increase in revenues from customers outside the city limits more than offsets the increase in expenditures resulting from the higher population growth rate. Conversely, in the low-growth scenario, there is relatively less revenue from outside customers available to offset the increase in expenditures.

Table 22 – Estimated Growth-Related Expenditures, Revenues, and Surplus or (Deficit), Base and Alternate Growth Rate Scenarios, Water and Sewer Utility, City of Aiken, Present Value, 2007 – 2026

Item	Base Scenario: 2.3 percent	Low Growth: 1.8 percent	High Growth: 2.8 percent
Revenues	$71,694,000	$52,521,000	$92,123,000
Expenditures	60,604,000	48,107,000	74,186,000
Surplus/(Deficit)	11,090,000	4,414,000	17,937,000
Allowance for Depreciation	14,589,000	10,770,000	18,770,000
Surplus/(Deficit) after Allowance for Depreciation	($3,499,000)	($6,356,000)	$833,000

The effect of outside utility customers on utility finances becomes especially apparent if we examine the effects of growth if there is no increase in the number of outside utility accounts. Table 23 compares the base, low-growth, and high-growth scenarios with the additional assumption that there is no increase in the number of outside utility accounts. This comparison highlights two important fiscal effects attributable to growth in the number of outside utility customers. First, if we assume there is no growth in outside utility accounts, the water and sewer utility's projected deficit is $5 to 9 million larger, depending on the growth rate, than if we assume that the utility continues to connect new customers outside the city limits. Second, if we assume there is no growth in the number of outside utility accounts, then changes in the assumed rate of growth have smaller impacts on the magnitude of the deficit. In Table 22, which assumes there is continued growth in the number of outside utility accounts, the difference in bottom line between the high- and low-growth scenarios exceeds $7 million. In Table 23, which assumes no increase in the number of outside accounts, the difference is less than $3 million. Clearly, the outside utility accounts have a large effect on the fiscal impact of growth on the water and sewer utility.

Table 23 – Estimated Growth-Related Expenditures, Revenues, and Surplus or (Deficit), Base and Alternate Growth Rate Scenarios, Water and Sewer Utility, Excluding Outside Utility Accounts, City of Aiken, Present Value, 2007 – 2026

Item	Base Scenario: 2.3 percent	Low Growth: 1.8 percent	High Growth: 2.8 percent
Revenues	$59,650,000	$43,888,000	$77,250,000
Expenditures	56,352,000	45,431,000	69,180,000
Surplus/(Deficit)	3,298,000	(1,543,000)	8,070,000
Allowance for Depreciation	13,155,000	9,707,000	16,987,000
Surplus/(Deficit) after Allowance for Depreciation	($9,837,000)	($11,250,000)	($8,917,000)

SUMMARY

We estimate that the new utility accounts associated with population growth within the City of Aiken and its utility service area will result in an increase in utility expenditures of more than $75 million, including the estimated increase in allowance for depreciation. Growth-related revenues from utility operations are estimated at approximately $72 million, resulting in a projected deficit of approximately $3.5 million.

FISCAL IMPACT ANALYSIS – STORMWATER UTILITY

The City of Aiken operates a stormwater utility for the benefit of its citizens. Its operations are funded primarily by user charges with finances accounted for in a proprietary fund which is separate from the City's general fund. Stormwater services are provided only to homes and businesses within the city limits.

For the twenty-year period beginning in fiscal year 2007 and ending in fiscal year 2026, we estimated the direct impacts of population growth on the expenditures and revenues associated with the operation of the City's stormwater utility services. This section of the report summarizes and compares the expenditure and revenue estimates.

EXPENDITURE INCREASES

Stormwater utility expenditures are divided into two types: operating and capital. The two expenditure types are briefly described below. Detailed explanations of the methods and assumptions used in estimating increases in expenditures of each type are provided in the appendix.

Operating Expenditures. These expenditures include employee salaries and fringe benefits, the costs of maintaining and operating vehicles and equipment, the costs of supplies, and other non-capital expenditures related to the activities of each municipal utility. These expenditures also include franchise fee and administrative expense reimbursements paid to the City's general fund.

Capital Expenditures. These expenditures include the costs of constructing new stormwater drainage facilities and the cost of purchasing new vehicles and equipment.

Estimated growth-related expenditure increases associated with operation of the water and sewer utility are summarized in Table 24 below. In addition to the expenditure estimates, the summary includes a brief description of the additional full-time personnel[18] and facilities required to serve the increase in population. Additional estimate details are available in the appendix.

The growth-related increase in expenditures is projected to be approximately $4.3 million. The increase is projected to be divided almost evenly between operating and capital expenditures.

[18] The projected personnel additions are estimates based primarily on projected increases in population. Actual staffing decisions take into account other factors in addition to the size of the local population. Consequently, future staff levels may be higher or lower than the levels projected in this report.

Table 24 – Stormwater Utility, City of Aiken,
Estimated Growth-Related Expenditures, 2007-2026

Expenditure Type	Required Additions	Present Value
Operating	Personnel: 3 stormwater utility workers	$2,097,000
Capital	Purchase of new vehicles and maintenance equipment; construction of new stormwater facilities	2,152,000
Total		**$4,249,000**

REVENUE INCREASES

The stormwater utility is funded by monthly user fees charged to residences and businesses based on lot size. The growth-related stormwater revenue increase over the period is projected at $3.7 million. We estimate that the existing capital improvements sales tax will provide an additional $451,000 in revenue for infrastructure construction.

COMPARISON OF EXPENDITURES AND REVENUES

Table 25 presents a comparison of the projected increase in stormwater utility expenditures and revenues associated with population growth. Our analysis indicates that the growth-related expenditures will exceed growth-related revenues by $505,000. This deficit is equivalent to a ratio of $1.13 in expenditures for every $1.00 of revenue. Accounting for the $451,000 of capital improvement sales tax revenue reduces the deficit to $54,000.

Depreciation expenses are used to account for the costs associated with the eventual replacement of stormwater infrastructure. We estimate that the increase in stormwater utility depreciation expense over the study period has a present value of approximately $49,000. After allowing for this increase in depreciation expense, we project that stormwater utility expenditures will exceed revenues by approximately $103,000 over the study period. This deficit is equivalent to an expenditure to revenue ratio of $1.02. In other words, we project that the stormwater utility will nearly breakeven over the period. The projected operating deficit is mostly offset by the availability of capital improvements sales tax revenue.

Table 25 – Estimated Growth-Related Expenditures, Revenues, and Surplus or (Deficit), Stormwater Utility, City of Aiken, Present Value, 2007 – 2026

Item	Amount
Revenues	$3,744,000
Expenditures	4,249,000
Surplus/(Deficit)	(505,000)
Capital Improvements Sales Tax Revenue	451,000
Surplus/(Deficit) after Capital Expenditures	(54,000)
Allowance for Depreciation	49,000
Surplus/(Deficit) after Allowance for Depreciation	($103,000)

SENSITIVITY ANALYSIS

We examined the sensitivity of our impact estimates to changes in the population growth rate by preparing estimates for two alternate scenarios using growth rates that are one-half percentage point below and above our base scenario growth rate of 2.3 percent. The summary of the two alternate scenarios and the base scenario presented in Table 22 indicates that the effect of the rate of growth on the overall fiscal impact is relatively slight. Neglecting capital improvements sales tax revenue, the difference between the high- and low-growth scenario impacts is $266,000.

Table 26 – Estimated Growth-Related Expenditures, Revenues, and Surplus or (Deficit), Stormwater Utility, Base and Alternate Growth Rate Scenarios, City of Aiken, Present Value, 2007 – 2026

Item	Base Scenario: 2.3 percent	Low Growth: 1.8 percent	High Growth: 2.8 percent
Revenues	$3,744,000	$2,760,000	$5,461,000
Expenditures	4,249,000	3,114,000	4,841,000
Surplus/(Deficit)	(505,000)	(354,000)	(620,000)
Capital Improvements Sales Tax Revenue	451,000	451,000	451,000
Surplus/(Deficit) after Accounting for Sales Tax Revenue	(54,000)	97,000	(169,000)
Allowance for Depreciation	49,000	36,000	65,000
Surplus/(Deficit) after Allowance for Depreciation	($103,000)	$61,000	($234,000)

SUMMARY

We estimate that the additional stormwater fee revenue associated with population growth will be sufficient to pay for approximately 87 percent of the increase in stormwater utility expenditures related to population growth. Most of the remaining deficit can be covered by revenue from the existing capital improvements sales tax.

CONCLUSIONS

Over the next twenty years, providing municipal goods and services to new residents and businesses in the City of Aiken will require substantial increases in operating and capital expenditures. However, the increased investment and other economic activity associated with growth will generate additional municipal revenues that will offset a large portion of the increase in expenditures. Revenue from the City's portion of the existing county-wide capital improvements sales tax will cover much of the remaining deficit.

Although we project a growth-related deficit in the City's general fund, the deficit is relatively small – approximately 16 percent of revenues. Consequently, we don't recommend any drastic changes to the City's revenue system to keep the City's growth fiscally sustainable. If the average value of new residences proves to be somewhat greater than the $156,000 we have assumed in our analysis, then the general fund deficit will be smaller. It is also possible that additional capital improvements sales tax revenues may be available in the future. This option will, of course, depend on whether the City, Aiken County, and the other communities in the county decide to propose an extension of the sales tax when the current tax ends and on subsequent approval of a proposal by the voters. If extension of the capital improvements sales tax proves not to be an option, the City may need to investigate alternative sources of revenue. We recommend that City officials keep a close eye on the actual rate of growth and changes in general fund finances in order to determine what, if any, changes are needed.

We wish to emphasize, however, the importance of obtaining a qualified engineering estimate of the transportation infrastructure improvements that will be required to accommodate the City's future growth. We have projected the cost of growth-related street system expansion over the next twenty years at approximately $13.7 million. Our estimate was prepared by examining the City's planned expenditures of capital improvements sales tax revenue for transportation infrastructure expansion over the next few years. We assume that the City will continue to invest in its transportation infrastructure at this same rate throughout the twenty-year study period. Our analysis, therefore, assumes that this current rate of investment is sufficient to keep up with the additional traffic demands resulting from population growth. We recommend that the City obtain an estimate by an experienced transportation engineer to determine if this current rate of investment can be expected to meet the City's future needs. If an engineering analysis should demonstrate that future transportation requirements will require greater expenditures than we have projected, then the City may need to consider additional sources of revenue. It is our understanding that the City is currently examining the feasibility of adopting a road impact fee.

For the City's utility operations, the fiscal outlook is much the same. Both the water and sewer utility and the stormwater utility appear to be operating near the breakeven point

over the long-term. We would caution, however, that fiscal sustainability of the water and sewer utility depends, in part, on continued growth in the number of utility customers located outside the city limits. If the growth of these accounts slows relative to historical trends, then adjustments to the utility's rate structure may be required.

Finally, we point out that our projections are intended to provide baseline estimates that can serve as a starting point when considering the likely fiscal impact of specific development proposals. The actual impact of a specific development project may vary according to such factors as its density, property value, and location relative to existing transportation and utility infrastructure. Developments that deviate substantially from the historical norm with respect to these characteristics may have fiscal impacts that are significantly different from the impacts we project in this report.

APPENDIX : ASSUMPTIONS AND METHODOLOGY

This appendix describes the assumptions and methodology used to estimate the increases in Aiken municipal government expenditures and revenues resulting from the population growth projected for the twenty-year period beginning in 2007 and ending in 2026.

EXPENDITURES

An increasing population requires greater expenditures of public funds to maintain the existing quality of public services. However, expenditures don't necessarily increase proportionately with the population. In other words, a ten percent increase in population won't necessarily increase expenditures by ten percent. Some public services such as public safety are highly dependent on personnel for service delivery. Prevailing wage rates and growth trends in wages and fringe benefit costs will drive future spending requirements in these areas. Other public services are more capital-intensive, and the anticipated cost of new facilities and infrastructure will be the main determinant of future spending.

We estimated the population-related increase in municipal spending in three stages. First, we classified municipal activities by function (public safety, judicial administration, etc.). Next, we allocated spending within each functional category into two expenditure types: operations and capital. Finally, we estimated the population-related increase in each expenditure type within each functional category.

ASSUMPTIONS

Projecting future expenditures required that we make certain assumptions about the future economic and demographic characteristics of development area. Our primary assumptions concern population growth rate, the inflation rate, and the discount rate to be used in computing present values of future expenditures.

Population Growth Rate. Our assumptions about the future rate of population growth are explained in the main body of the report.

Inflation Rate. The assumed inflation rate is based on data from the U.S. Department of Labor, Bureau of Labor Statistics (BLS). BLS data indicate that over the past ten years the average annual change in the consumer price index for Southern urban areas has been approximately 2.3 percent. We assumed a higher rate of 3 percent because data from recent years indicates an upward trend.

We assumed that most costs would increase at the same rate as inflation. The one exception to this default assumption is the cost of health care benefits for employees.

BLS data indicate that in recent years the cost of state and local government employee benefits has increased at a rate that is more than four percentage points greater than the rate of inflation. Furthermore, the growth of benefit costs in excess of inflation has been increasing over the past decade; in 1994 employee benefits increased no faster than the rate of inflation. To account for the rapid growth in fringe benefit costs, we assumed that fringe benefit expenditures would increase at a rate seven percentage points greater than the rate of inflation.

Present Values and the Discount Rate. We compare expenditures and revenues occurring over several years by converting them to present values. The present value of a future expenditure is the amount you would need to invest today to have the expenditure amount in the future. For example, if you wanted to have $1,000 one year from now and could earn 3.0 percent on your investments, you would need to invest $970.87 today, since 970.87 X 1.03 = 1000.00. We have used a discount rate of 3.0 percent in converting future expenditure and revenue amounts to present values.

EXPENDITURE PROJECTION METHODOLOGY

The two expenditure types are operating expenditures and capital expenditures. The methods used to project expenditure increases of each type are described below.

Operating Expenditures. As population increases, additional employees will be required to maintain service quality at existing levels. Hiring additional employees will increase the amount of money spent on employee salaries, fringe benefits, and other expenditures related to department operations.

We used budget and other data provided by the City to estimate the number of employees in each classification that will need to be hired during each year of the study period to maintain service levels as the population increases. We estimated salary expenditures for the new employees by assuming that each new employee would be paid a salary similar to that of existing employees in the same classification. We obtained salary information from the most recent wage and salary report produced by the Municipal Association of South Carolina[19], City budget documents, and interviews with staff members.

For most positions, such as sworn officers in the public safety department, we assumed that staffing levels would increase proportionally with the growth in population. Staffing for some positions depends on other determinants. For example, the number of fire equipment driver/operators depends on the number of public safety stations that are in operation. For certain other positions we based our projections on the present

[19] Municipal Association of South Carolina, *2006 Municipal Compensation Survey* (Columbia SC: Municipal Association of South Carolina, 2006).

staffing levels of other cities that are currently at the City of Aiken's future population levels.

We estimated employee benefit expenditures by examining the relationship between employee benefit and salary expenditures in recent-year budgets. We projected increases in employee benefit expenditures by multiplying annual new salary expenditures in each department by the estimated employee benefit percentages.

As departments increase their workload, non-personnel operating expenditures increase as well as salaries and employee benefits. We projected these expenditures by a method similar to that used for projecting employee benefits. We examined the relationship between non-personnel operating expenditures and salary expenditures reflected in recent-year budgets. We projected increases in non-personnel operating expenditures by multiplying annual new salary expenditures in each department by the non-personnel operating expenditure percentage for that department. Table 27 through Table 34 list the salary, benefit, and other operating expense assumptions used in this analysis.

Table 27 – General Administration, Base Year Operating Expenditure Assumptions by Employee Classification, City of Aiken

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Finance Specialist	$34,300	12%	16%	62%	$65,170
HR Specialist	30,000	12%	16%	42%	51,000

Table 28 – Planning and Community Development, Base Year Operating Expenditure Assumptions by Employee Classification, City of Aiken

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Planner	$41,600	12%	16%	46%	$72,384
Inspector	40,000	12%	16%	46%	66,400
Clerical Worker	27,800	12%	16%	38%	46,148

Table 29 – Judicial Administration, Base Year Operating Expenditure Assumptions by Employee Classification, City of Aiken

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Municipal Judge	$35,500	12%	16%	8%	$48,280
Court Clerks / Administrative Employees	38,200	12%	16%	8%	51,952

Table 30 – Public Safety, Base Year Operating Expenditure Assumptions by Employee Classification, City of Aiken

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Administrative Officer	$51,900	12%	23%	21%	$80,964
Investigative Officer	44,900	12%	23%	21%	70,044
Patrol Officer	38,600	12%	23%	21%	60,216
Civilian Administrative Worker	31,500	12%	16%	21%	43,155
Fire Equipment Driver/Operator	31,200	12%	16%	21%	46,488
Dispatcher	31,600	12%	16%	23%	47,716
Traffic Maintenance Worker	36,000	12%	16%	154%	97,200

Table 31 – Public Works – Non-Sanitation, Base Year Operating Expenditure Assumptions by Employee Classification, City of Aiken

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Building and Grounds Worker	$26,000	12%	16%	68%	$50,960
Streets and Parks Worker	23,700	12%	16%	83%	50,007
Mechanic	31,500	12%	16%	58%	58,590

Table 32 – Public Works – Sanitation, Base Year Operating Expenditure Assumptions by Employee Classification, City of Aiken

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Equipment Operator	$25,700	12%	16%	70%	$50,886
Driver	29,000	12%	16%	70%	57,420
Other Worker	23,900	12%	16%	70%	47,332

Table 33 – Recreation and Culture, Base Year Operating Expenditure Assumptions by Employee Classification, City of Aiken

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Park Maintenance Supervisor	$40,500	12%	16%	95%	$90,315
Park Maintenance Worker	25,800	12%	16%	95%	57,534
Recreation Supervisor	53,000	12%	16%	71%	105,470
Recreation Worker	40,000	12%	16%	71%	79,600
Athletics Worker	18,100	12%	16%	125%	45,793

Table 34 – Utility Operations, Base Year Operating Expenditure Assumptions by Employee Classification, City of Aiken

Classification	Base Salary	Health Benefit %	Other Benefit %	Other Operating %	Total Base Expenditure
Distribution Worker	$30,300	28%	24%	53%	$62,115
Distribution Supervisor	35,000	28%	24%	53%	71,750
Engineering Tech	37,300	28%	24%	82%	87,282
Stormwater Worker	30,000	12%	16%	42%	51,000

Some public services, such as solid waste disposal and wastewater treatment are provided through third parties. We estimated these expenditures using current data on costs and volumes obtained from documents provided by the City and in interviews with City staff members.

Capital Improvement Expenditures. Capital expenditures fall into three categories: expanded office facilities to accommodate a larger staff, additional passenger vehicles and other rolling stock to be used by new employees, and additional infrastructure, such as roads and park facilities. We assumed that each new staff member would require the addition of 300 square feet of office or other facility space.[20] We assumed that initial year construction costs would be $200 per square foot, inclusive of furnishings and equipment. We assumed these facility expansions would require the purchase of additional land at the rate of 0.02 acres per new staff member at a cost of $35,000 per acre.

We obtained information about requirements for passenger vehicles and other rolling stock from examining municipal asset lists and budget documents. We converted the estimated new vehicle cost per employee into an annual cost by dividing it by the estimated number of years between replacements. These annual vehicle purchase expenditures were counted among the capital expenditures. Our vehicle purchase assumptions are listed in Table 35.

[20] Based on data contained in Arthur C. Nelson, *Planners' Estimating Guide*, (Chicago: Planners Press, 2004), Table 4-2: Gross Building Space Occupied per Employee.

Table 35 – Base Year Capital Vehicle Expenditure Assumptions, City of Aiken

Function	Item	Purchase Cost	Employees per Vehicle	Replacement Period (Years)	Annualized Cost per Employee
Public Safety	**Patrol Vehicle: Patrol/Investigative/ Administrative Officer**	$28,000	1	4	$7,000
	Fire Engine	250,000	1 (per station)	20	12,500 (per station)
	Aerial Truck	700,000	1 (per station)	20	35,000
	Passenger Vehicle: Traffic Maintenance	28,000	1	4	7,000
Planning and Community Development	**Passenger Vehicle: Inspector**	28,000	1	4	7,000
Public Works	**Miscellaneous Equipment: Building and Grounds/ Streets and Parks/ Sanitation Operator**	-	-	-	10,500
	Sanitation Equipment: Driver	125,000	1	4.5	27,778
Recreation and Culture	**Miscellaneous Equipment: Park Maintenance**	-	-	-	10,500
Utilities	**Miscellaneous Equipment: Distribution/ Stormwater**	-	-	-	10,500
	Passenger Vehicle: Distribution Supervisor	28,000	1	4	7,000

We estimated the City's future requirements for additional public safety stations by examining the number of fire companies staffed by municipalities in the population range contemplated by our projection.

Based on the information presented in Table 36, we estimated that the City of Aiken would require one additional station over the next twenty years. It is our understanding that the City plans to construct a station within the next year and that it will be equipped with one aerial truck and one engine. We estimated the construction cost of the station at $500,000 in 2005 dollars.

Table 36 – Fire Protection Staffing, Selected S.C. Municipalities

		Companies	
Municipality	**Population (2003)**	**Engine**	**Aerial**
Greenville[21]	55,926	6	3
Mt. Pleasant[22]	54,788	5	3
Anderson[23]	25,563	3	2

Another important capital expenditure is the purchase and construction of additional park land and associated improvements. We assumed that the City of Aiken would require 8.5 acres per 1,000 residents[24] at a cost of $35,000 per acre. We also assumed that the City would spend an additional $225 per capita (in real terms) for improvements and equipment for the new park land.

Streets and roads must also be expanded to handle the increase in traffic associated with a growing population. To estimate growth-related street expenditures, we examined the list of capital projects to be funded by the capital improvements sales tax over the next seven years and identified approximately $4 million worth of projects intended to expand the capacity of the City's street system. We divided the total project cost by the projected seven-year increase in population of 4,988 persons to arrive at an

[21] Source: <http://www.greatergreenville.com/city_services/firesta.asp>

[22] Source: <http://www.mpfd.com/index.cfm?section=6&page=2>

[23] Sources:
<http://www.cityofandersonsc.com/budget/general_fund/fire/fire_personnel_authorizations.pdf>
and <http://www.cityofandersonsc.com/budget/general_fund/fire/fire_fire.pdf>

[24] Based on existing NRPA recommendations for neighborhood and community parks.

estimated per capita expenditure of $800. We assumed that the City of Aiken would continue this rate of investment over the entire twenty-year period.[25]

Population growth also requires the expansion of the stormwater system. We identified in the capital improvements sales tax list $3.5 million worth of projects related to stormwater system expansion. We assumed that these projects were intended to serve both existing and future residents over the next seven years, with 15 percent of the total intended to serve new residents. This assumption implies that spending for new residents is $106 per capita. We assumed that the City of Aiken would continue this rate of investment over the entire twenty-year period.[26]

A growing population will also require additional water pumping capacity and wastewater treatment capacity. The City's current water production capacity is 16 million gallons per day (MGD). Using monthly consumption data provided by the City we estimated the growth in peak daily usage associated with population growth. Table 38 presents our estimate of peak daily consumption, the minimum production capacity required, the additional capacity required, and the projected capacity additions for the twenty-year study period. Our assumptions about the base cost of capacity additions are presented in Table 38.

Table 37 – Base Year Water Production Capacity Cost Assumptions, City of Aiken

Addition	Estimated Cost (2005)
3 MGD Plant with Allowance for Future Expansion	$3,800,000
1 MGD Plant Expansion	600,000

The City of Aiken contracts with the Aiken County Public Service Authority for the treatment of wastewater at the Authority's Horse Creek Basin facility. The City is currently using nearly its entire allotted capacity of 4.413 MGD, but has the ability to purchase additional capacity allotments as required. Using monthly consumption data provided by the City we estimated the growth in peak daily capacity associated with population growth. Table 39 presents our estimate of peak daily capacity, the minimum production capacity required, the additional capacity required, and the projected

[25] We have no opinion as to whether this rate of investment will be adequate. We recommend that the City consult with an engineering firm experienced in transportation planning.

[26] Again, we have no opinion as to whether this rate of investment will be adequate. We recommend that the City consult with an engineering firm experienced in stormwater planning.

capacity additions for the twenty-year study period.[27] Based on information provided by the City, we assumed that the base year cost of additional capacity is $550 per MGD.

Table 38 – Projected Water Production Capacity Requirements, City of Aiken, 2007-2026

Year	Peak Daily Production (MGD)	Minimum Required Capacity (MGD)	Additional Required Capacity (MGD)	Projected Capacity Addition (MGD)
2007	16.08	17	1	1
2008	16.34	17	1	0
2009	16.61	17	1	0
2010	16.89	17	1	0
2011	17.17	18	2	3
2012	17.45	18	2	0
2013	17.74	18	2	0
2014	18.03	19	3	0
2015	18.33	19	3	0
2016	18.64	19	3	0
2017	18.95	19	3	0
2018	19.26	20	4	0
2019	19.58	20	4	0
2020	19.91	20	4	0
2021	20.25	21	5	1
2022	20.59	21	5	0
2023	20.93	21	5	0
2024	21.28	22	6	1
2025	21.64	22	6	0
2026	22.01	23	7	1

[27] These water and wastewater capacity projections are prepared only for the purposes of estimating the fiscal impact of population growth. They should not be used as a substitute for competent engineering advice.

Table 39 – Projected Wastewater Treatment Capacity Requirements, City of Aiken, 2007-2026

Year	Peak Daily Capacity (MGD)	Additional Required Capacity (MGD)	Projected Capacity Addition (MGD)
2007	4.416	0.003	0.003
2008	4.507	0.094	0.091
2009	4.599	0.186	0.092
2010	4.693	0.280	0.094
2011	4.788	0.375	0.095
2012	4.884	0.471	0.096
2013	4.982	0.569	0.098
2014	5.082	0.669	0.100
2015	5.184	0.771	0.102
2016	5.287	0.874	0.104
2017	5.392	0.979	0.105
2018	5.499	1.086	0.107
2019	5.608	1.195	0.109
2020	5.718	1.305	0.110
2021	5.832	1.419	0.113
2022	5.947	1.534	0.115
2023	6.064	1.651	0.117
2024	6.183	1.770	0.119
2025	6.303	1.890	0.121
2026	6.426	2.013	0.123

REVENUES

As population increases, new construction and increased commercial activity expands the City's tax base. The expanding tax base and increased commercial activity lead to increases in City tax and non-tax revenues. The main revenue sources that are expected to grow with population are property taxes, license and permit fees, charges for services, and fines.

We estimated population-related revenue increases in two stages. First, for each revenue source, we estimated the increase in tax base or commercial activity associated with the increase in population. Then, we estimated the increase in revenue associated with the increase in tax base or commercial activity.

ASSUMPTIONS

Projecting future revenues required that we make certain assumptions about the City's future economic and demographic situation. Our primary assumptions concern average new home values and the percentage of new residences that are single-family homes. For demographic characteristics, population growth, the inflation rate, and the discount rate we used the same assumptions as in estimating expenditure increases.

Home Value. Our assumptions about average home values are described in the overview of the fiscal impact assessment.

Proportion of Owner-Occupied Residences. We assumed that 90 percent of new residential construction will be owner-occupied.

Tax Rates, Assessment Ratios, and Reassessment. For the purposes of this study, we assumed that property tax millage rates will remain at current levels. We assumed that assessment ratios would remain as specified by existing law. We did not attempt to account for the effects of any reassessments scheduled to occur during the period under study.

REVENUE PROJECTION METHODOLOGY

Different estimation procedures were used for each revenue source. The methods used to project increases in revenue from each source are described below.

Property Tax Revenues. Property taxes are assessed on both real property and personal property. Real property includes owner-occupied residential property, commercial and rental property, agricultural property, and manufacturing and industrial property. Personal property includes vehicles owned by individuals and business personal property. Utility and motor carrier property is also taxed.

The population-related increases in property tax revenues from each class of property were estimated using the same overall process. First, we estimated the effect of population growth on total property valuation within the property class. Then we multiplied the valuation increase by the applicable assessment ratios. Finally we multiplied the increase in assessed valuation by the applicable millage rate to estimate the amount of new tax revenue. The methods used for each property class are discussed separately below.

Residential: We estimated the population-related increase in valuation of residential property for each year by multiplying the projected annual new residential units by the average new residence value. Next, total residential property value was apportioned between owner-occupied and rental property by multiplying by the owner-occupied residence percentage. The assessed value was calculated by multiplying valuation by the appropriate assessment ratio. The cumulative increase in assessed value was used to project the increase in property tax revenue from taxes on owner-occupied housing within each jurisdiction.

Commercial: Analysis of data contained within the 2005 Consolidated Annual Financial Report indicates that over the past ten years, the value of commercial construction has been approximately 29 percent of the value of residential construction. We used this ratio in estimating the annual increase in valuation of commercial property.

The assessed value of the commercial property was calculated by multiplying the estimated valuation by the applicable assessment ratio. The cumulative increase in assessed value was used to project the increase in property tax revenue from taxes on commercial and rental property.

Agricultural property: We assumed there would be no population-related increase in property tax revenue from agricultural property.

Manufacturing property: Changes in real per capita valuation of manufacturing property depend on the decisions of manufacturing firms to locate new facilities within the City. We assumed there would be no population-related increase in property tax revenue from manufacturing property.

Personal property: We assumed that personal property value will increase with population and that real per capita personal property value will remain constant at its existing level. The assessed value was calculated by multiplying the valuation by the applicable assessment ratio. The cumulative increase in assessed value was used to project the increase in property tax revenue from taxes on personal property.

Capital Improvements Sales Tax Revenue. The City of Aiken receives a share of the revenue generated by a county-wide capital improvements sales tax. This revenue is not directly affected by population growth as the tax is collected for seven years or until a specified amount of revenue is collected, whichever occurs first. Consequently, the City's share of the current sales tax is fixed. We reviewed the list of capital projects to be funded from sales tax revenues and identified the portion of revenue dedicated to projects that expand the City's ability to serve a larger population. This portion of the sales tax revenue has a present value of approximately $13 million.

We estimated the potential revenue that might be available for growth-related capital improvements in the case that the capital improvements sales tax is reauthorized one or

two times during the period under study. We assumed that inflation-adjusted total revenue generated by the sales tax would increase proportionately with Aiken County population, which we assumed would grow at a rate one-half percentage point less than that of the City. We also assumed that the City would continue to direct approximately one-half its portion of the revenue to growth-related capital improvements.

Non-tax Revenue. The City of Aiken has a variety of non-tax sources of revenue including licenses and permits, charges for services, and fines. We analyzed business license revenue data contained in the 2005 Consolidated Annual Financial Report to determine average per capita gross sales and the relationship between gross sales and business license revenue. This information was used to project the increase in business license revenue.

Building permit fees for new construction were estimated at 0.4 percent of construction value. Plan review fees were estimated at 50 percent of permit values. Recreation fees, fines, and remodeling permit fees were estimated by calculating per capita values from the latest available budget information. Residential solid waste fees were calculated on a per household basis. Commercial solid waste fees were calculated on a per capita basis.

We analyzed fiscal year 2005 water and sewer utility billing data to estimate annual consumption and revenue per account for residential and non-residential accounts, both inside and outside the city limits. Stormwater fees were calculated on a per capita basis.

Our base year assumptions about fees and charges are presented in Table 40 and Table 41. We assumed that all fees and charges would be adjusted for inflation on an annual basis.

Table 40 – General Fund Fee and User Charge Assumptions, Base Year, City of Aiken

Item		
Gross Sales	$45,650	per capita
Population Elasticity of Per Capita Gross Sales	0.60	See note.
Business License Revenue	0.45%	of gross sales
Fines	$12.82	per capita
Recreation Fees	$19.54	per capita
Residential Solid Waste Fees	$124.50	per household per year
Commercial Solid Waste Fees	$20.54	per capita
Building Permit Fees	0.40%	of value
Remodeling/Plumbing/Electrical Permits	$4.69	per capita

Note: This indicates that a 1 percent increase in population leads to a 0.6 percent increase in real per capita gross sales.

Table 41 – Utility User Charge Assumptions, Base Year, City of Aiken

Item		
Residential Water Consumption	1,164	cu ft per account per month
Non-Residential Water Consumption	3,222	cu ft per account per month
Residential Sewer Consumption	852	cu ft per account per month
Non-Residential Sewer Consumption	3,136	cu ft per account per month
Residential Water Revenue (Inside City Limits)	$1.392	per 100 cu ft
Residential Water Revenue (Outside City Limits)	$2.784	per 100 cu ft
Non-Residential Water Revenue (Inside City Limits)	$1.222	per 100 cu ft
Non-Residential Water Revenue (Outside City Limits)	$2.444	per 100 cu ft
Residential Sewer Revenue (Inside City Limits)	$2.407	per 100 cu ft
Residential Sewer Revenue (Outside City Limits)	$4.814	per 100 cu ft
Non-Residential Sewer Revenue (Inside City Limits)	$2.093	per 100 cu ft
Non-Residential Sewer Revenue (Outside City Limits)	$4.186	per 100 cu ft
Stormwater User Charge Revenue	$20.75	per capita